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EXAMINER

HIGA, BRENDAN Y

ART UNIT

PAPER NUMBER

2153

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DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |                                        |  |
|------------------------------|--------------------------------------|----------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/748,769 | <b>Applicant(s)</b><br>EWANCHUK ET AL. |  |
|                              | <b>Examiner</b><br>BRENDAN Y. HIGA   | <b>Art Unit</b><br>2153                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 June 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                      |                                                                   |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____                                                          | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

This Office action is in response to Applicant's amendment and request for reconsideration filed on June 19, 2008.

Claims 1-20 are pending.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 12, 14, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Gase (US 6,363,081).**

As per claim 12, Gase teaches a processor coupled to memory and a hardware device for communicating ('Client computer', Fig. 1, ref. 20, col. 2, and lines 59-61) with remote resources (see Fig. 1, ref. 22); software in memory and comprising:

An operating service for receiving system service requests via an application services interface ('port', read as an application services interface, see col. 3, lines 1-20); plural applications (see col. 3, lines 1-2) requesting remote services from the operating service via the application service interface (see col. 3, lines 1-20);

Art Unit: 2153

a connection manager (i.e. a primary application) for establishing via the hardware device (i.e. client 24) a connection (i.e. a port connection of the client device 24, see abstract) being shared by a plural applications (i.e. secondary applications, see col. 3, lines 30-45) communicating with remote resources over the connection (i.e. server Fig. 1, ref. 22) and for maintaining the connection when an application requests a disconnection while another application is still using the connection (see “drop command”, col. 5, lines 62-col. 6, line 2, wherein a secondary application is dropped while the other secondary application remain connected or col. 6, lines 48-60)

As per claim 14, Gase further teaches wherein the connection manager maintains a list of applications that have requested the connection (see “Distribution list”, col. 3, lines 30-45)

As per claim 16, Gase further teaches wherein the system is a personal computer (see col. 2, lines 59-25).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-3, 13, 15, 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gase (US 6,363,081) in view of Hong et al. (US H2065 H), hereafter Hong.**

As per claim 1, Gase teaches receiving, in a connection manager (i.e. a first application that receives port connection requests from secondary applications, see col. 3, lines 30-35) that is separate from the plural applications (see col. 3, lines 30-35), a connection request comprising a process identification (“forwarding information”, see col. 3, lines 38-45, read as identification information for a process) and saving the process identification in a data structure (“distribution list”, see col. 3, lines 38-45);

Establishing a connection, using the connection manager, upon receiving a connection request when no connection exists (see col. 1, lines 64-col. 2, lines 9, wherein the primary application receives registration requests for connecting with the contested port, when the secondary applications are not yet registered with the port connection yet, read as no connection existing);

Receiving a disconnection request comprising a process identification and removing the disconnection process identification from the data structure (see “DROP” command, read as a disconnection request, col. 5, lines 57-62);

Gase further teaches see col. 6, lines 56-60, *“Upon receiving a shutdown notice, the affected secondary applications begin negotiating among themselves to identify which application should become the primary application.”* Thus Gase, teaches that there are further secondary applications within the distribution list for which to take over for the primary application, however, Gase does not expressly teach terminating the

connection upon receiving a disconnection request when no process identification remain in the data structure after removing the disconnecting process identification.

However, in the same art of network session establishing, Hong et al. teaches a technique for closing client network connections when there is no longer any use for the connection to stay upon (see col. 7, lines 42-55).

One of ordinary skill in the art would have been motivated to combine the teachings of Gase with the teachings of Hong for terminating the connection over the primary port when there are no longer any secondary applications in the distribution list requesting to bind with the primary port (i.e. *terminating the connection upon receiving a disconnection request when no process identification remain in the data structure after removing the disconnecting process identification*). The motivation for doing so would have been to release any client resources associated with the maintenance of the inactive internet connection.

As per claim 2, Gase in view of Hong further teaches saving a time that a connection request was received (see Hong, 'idle time', col. 7, lines 42-47); after a threshold period after the time (see Hong, 'amount pre-determined to be adequate for the closing operation', see col. 7, lines 42-55), removing a process identification from the data structure if a process associated with the process identification has terminated (see Gase, col. 5, lines 57-62); and terminating the connection when no process identifications remain in the data structure after removing the identification of the

Art Unit: 2153

terminated process (see rationale provided in claim 1, with respect to the combined teachings of Gase and Hong).

The same motivation that was utilized for combining Gase and Hong in claim 1 applies equally well to claim 2.

As per claim 3, Gase in view of Hong further teaches wherein the device is a computer (see Gase, client computer Fig. 1, ref. 24, and col. 3, lines 1-2) and the connection is a dial-up connection (see Hong, 'dial-up', col. 1, lines 20-35).

As per claim 20, Gase in view of Hong further teaches periodically removing identifiers of processes from the stored identifiers when the processes have terminated without requesting a disconnect (see Hong, wherein, regardless of whether a TCP disconnect command is issued, the connection with the application will close once the idle timer 607 reaches zero, see col. 7, lines 42-55).

Claims 13, 15, 18, and 19 are rejected under the same rationale as claims 1, 2, 3, 12, 14, 16, and 20 since they recite substantially identical subject matter. Any differences between the claims do not result in patentably distinct claims and all of the limitations are taught by the above cited art.

**Claims 4, 5, 6 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gase (US 6,363,081) (“Gase”) in view of Hong (US H2065 H) (“Hong”), in further view of Cho et al. (US 6922728) (“Cho”), hereafter referred to as Cho.**

As per claim 4, Gase in view of Hong does not teach wherein the device is a wireless device and the connection is a wireless connection.

As per claim 5, Gase in view of Hong does not teach the wireless device being a phone.

As per claim 6, Gase in view of Hong, does not teach the wireless device being a hand-held device.

As per claim 17, Gase does not expressly teach the connection being wireless.

However, a device such as a wireless hand-held phone which opens internet connections via wireless links was well known in the art at the time of the invention. For example, Cho teaches the use of a hand-held personal digital assistant (PDA), with phone capabilities, which connects to the internet via a wireless connection (see col. 1, lines 25-35).

One of skill in the art would have been motivated to modify the teachings of Gase and Hong, for use with a personal digital assistant (PDA) in order to take advantage of the inherent portability associated with such a device.



**Claims 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peiffer et al. (US 2002/0052931) (“Peiffer”), in view of Gase (US 6,363,081) (“Gase”), in further view of Hong (US H2065 H) (“Hong”).**

As per claim 7, Peiffer teaches receiving from a first application (see Fig. 2, ref. 12), a first request (HTTP requests, see ¶0028), in a connection manager (networking device. Fig. 2, ref. 26), for connection to a remote resource (see Fig. 2, ref. 25);

Upon receiving the first request for connection, creating the connection between the first application and the remote resource when the connection is not already established (see ¶0043 and Fig. 7, *which generally discusses the opening of a connection between the first application (i.e. client) and the remote resource (i.e. server system). However, Peiffer does not necessarily teach the connection between the client and the server system occurring in response to a client application request, for instance it is possible that the server socket connection is pre-established. Nevertheless, opening a connection between a client application and a server in response to a client request is well known in the art (see for example Anders (US 6604144), col. 2, lines 1-18). One of ordinary skill in the art would have been motivated to open a connection between the remote resource (Fig. 2, ref. 25) and the client application (Fig. 2, ref. 12) in response to an HTTP request. The obvious motivation for doing so would have been to reduce overhead (i.e. TCP connection exchanges) associated with establishing server connection until such a connection is required by a client application*);

Receiving, in the connection manager (see Fig. 2, ref. 12), a second request (i.e. HTTP requests from multiple client applications, see ¶0028) from a second application for connection to the same remote resource as the first application (i.e. Fig. 2, ref. 25); sharing the connection to the remote resource between the first application and the second application (i.e. “via a single server TCP connection”, see ¶0028 and ¶0032);

Receiving a request for a disconnection form a remote resource (“explicit command to close”, see ¶0041);

Peiffer, however, does not expressly teach the concept of data structure for saving an identifier of the first request for a connection.... Deleting from the data structure, an identifier of the request for disconnection; disconnecting the connection upon a disconnection request when the deleted identifier is the last identifier of a request for a connection in the data structure.

However, in the same art of network connection sharing, Gase teaches a data structure for storing an identifier of an application requesting access to a network port connection (“distribution list”, see col. 3, lines 38-45). Furthermore, Gase teaches the step of deleting the identifier from the data structure upon a request for disconnection (see “DROP” command, read as a disconnection request, col. 5, lines 57-62).

One of ordinary skill in the art would have been motivated to combine the teachings of Peiffer with the teachings of Gase. The obvious motivation for doing so would have been to provide a means for keeping track of the client applications requesting access to a particular server socket.

Furthermore, although Gase teaches see col. 6, lines 56-60, *"Upon receiving a shutdown notice, the affected secondary applications begin negotiating among themselves to identify which application should become the primary application."* Thus Gase, teaches that there are further secondary applications within the distribution list for which to take over for the primary application, however, Gase does not expressly teach terminating the connection upon receiving a disconnection request when no process identification remain in the data structure after removing the disconnecting process identification.

However, in the same art of network session establishing, Hong et al. teaches a technique for closing client network connections when there is no longer any use for the connection to stay upon (see col. 7, lines 42-55).

One of ordinary skill in the art would have been motivated to combine the teachings of Peiffer and Gase with the teachings of Hong for terminating the server system connection when there are no longer any secondary applications in the distribution list requesting to bind with the primary port (i.e. *terminating the connection upon receiving a disconnection request when no process identification remain in the data structure after removing the disconnecting process identification*). The motivation for doing so would have been to release any resources on the network device (see Peiffer Fig. 2 ref. 26) associated with the maintenance of the inactive server system connections.

As per claim 8, the combination of Peiffer, Gase and Hong teaches the invention substantially as claimed as noted above. Furthermore, Gase in view of Hong further teaches saving a time that a connection request was received (see Hong, 'idle time', col. 7, lines 42-47); after a threshold period after the time (see Hong, 'amount pre-determined to be adequate for the closing operation', see col. 7, lines 42-55), removing a process identification from the data structure if a process associated with the process identification has terminated (see Gase, col. 5, lines 57-62); and terminating the connection when no process identifications remain in the data structure after removing the identification of the terminated process (see rationale provided in claim 7, with respect to the combined teachings of Gase and Hong).

The same motivation that was utilized for combining Peiffer, Gase and Hong in claim 7 applies equally well to claim 8.

As per claim 9, Peiffer further teaches wherein a request for a connection originates from an application and the remote resource is a web server ("HTTP requests", see abstract also see ¶0019 "web servers")

As per claim 10, Peiffer teaches the connection with the server system occurring over a LAN Fig. 2, ref. 84 and thus does not expressly teach the connection being a dial-up connection between a modem and an Internet service provider.

Nevertheless, dial up connections between a modem and an Internet service Provider were well known in the art at the time of the invention, for example, Hong

teaches a dial-up connection between a modem and an Internet service provider (see Hong, 'dial-up', col. 1. lines 20-35 and col. 3, lines 40-41).

One of skill in the art would have been motivated to modify the teachings of Peiffer with the teachings of Hong for establishing a dial up connection with the server system over a wide area network (i.e. via an internet service provider). The obvious motivation for doing so would have been to operate the invention disclosed by Peiffer (i.e. network device Fig. 2, ref. 26) from a location remote from the LAN (fig. 2, ref. 84).

**Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Peiffer et al. (US 2002/0052931) ("Peiffer"), in view of Gase (US 6,363,081) ("Gase"), in view of Hong (US H2065 H) ("Hong"), in further view of Microsoft Computer Dictionary, 5<sup>th</sup> ed. (May 01, 2002).**

As per claim 11, Peiffer further teaches wherein the method is running on a device (i.e. network device Fig. 2, ref. 26) with plural applications (i.e. muxing and demuxing software applications, see ¶0028) sending the connection requests and communicating with remote resources over the connection (see server system, Fig. 2, ref. 22).

Peiffer does not expressly teach the network device being a wireless network device.

However, wireless networking was well known in the art at the time of the invention. For example, Microsoft Computer Dictionary, 5<sup>th</sup> ed. (May 01, 2002) teaches a wireless local area network (see "WLAN").

One of ordinary skill in the art would have been motivated to modify the teachings of Peiffer with a wireless networking device. The obvious motivation for doing so would have been to take advantage of the added mobility inherent to a wireless device.

### ***Response to Arguments***

Applicant's arguments filed June 19, 2008, with respect to claims 1, 12 and 18 have been fully considered but they are not persuasive.

With respect to the applicant's argument that the prior art, Gase (US 6,363,081) ("Gase") does not teach *"a connection manager for establishing via the hardware device a connection shared by a plural applications communicating with remote resources over the connection and for maintaining the connection when an application requests a disconnection while another application is still using the connection"*, the examiner respectfully disagrees.

See col. 3, lines 2-6, which clearly teaches a connection manager (i.e. a primary application) for establishing via the hardware device (i.e. client 24) a connection (i.e. a port connection of the client device 24, see abstract) being shared by a plural applications (i.e. secondary applications, see col. 3, lines 30-45) communicating with remote resources over the connection (i.e. server Fig. 1, ref. 22).

Similarly the applicant's amendments with regards to claims 1 and 18, are not persuasive over the prior art. For example, "a connection manager that is separate from the plural applications", is clearly taught by Gase, see for example col. 3, lines 30-32, wherein the primary application (which the examiner is interpreting as the claimed connection manager) is taught as being separate from the secondary applications (which the examiner is interpreting as the claimed plural applications).

Applicant's arguments with respect to claim 7 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 2153

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRENDAN Y. HIGA whose telephone number is (571)272-5823. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached on (571)272-3949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Glenton B. Burgess/  
Supervisory Patent Examiner, Art Unit 2153

BYH